

# stroke recovery

The right nutrients and herbs can help repair damage and improve quality of life

Strokes are the leading cause of adult disability in the United States and the third leading cause of death. A stroke can be the result of a lack of blood flow caused by a blood clot or a hemorrhage. Without oxygen, brain cells become damaged or die so the affected area of the brain becomes unable to function. Risk factors for stroke include: high blood pressure, diabetes, high cholesterol, smoking, and atrial fibrillation (heart abnormality). High blood pressure is by far the biggest risk factor for stroke.

## Aiding Stroke Recovery

The results of stroke can affect patients physically, mentally, and/or emotionally, and vary widely. Disability corresponds to areas of the brain that have been damaged. For most stroke patients, recovery involves a combination of physical therapy, occupational therapy, and speech-language pathology, and it's important to take advantage of all of these services.



Medical care is often focused on preventing another stroke and most often utilizes anti-coagulant therapy with warfarin (Coumadin) or anti-platelet therapy with aspirin, ticlopidine (Ticlid), or clopidogrel (Plavix). These drugs are designed to prevent blood clots from forming and lodging in the brain, which could produce another stroke. These drugs are not, of course, used in cases where the stroke was caused by a hemorrhage.

## Precautions with Coumadin

Coumadin works by blocking the action of vitamin K. Since green leafy vegetables and green tea contain high levels of vitamin K, you should avoid these foods while taking Coumadin, or at least don't increase your consumption of them. Physicians monitor the effects

of Coumadin using a test known as the International Normalized Ratio (INR) and will adjust the dosage up or down as needed. In addition to foods that are high in vitamin K, other natural substances that may interact with Coumadin include:

- Coenzyme Q10 and St. John's wort (*Hypericum perforatum*), which may reduce Coumadin's efficacy.
- Proteolytic enzymes, such as nattokinase and bromelain, and several herbs, including *Panax ginseng*, devil's claw (*Harpagophytum procumbens*), and dong quai (*Angelica sinensis*), can increase Coumadin's effects. It's likely that you can continue using these products, but don't change the dosage from what your body is

accustomed to. INR values must be monitored appropriately.

- Garlic (*Allium sativum*) and ginkgo (*Ginkgo biloba*) may reduce the ability of platelets to stick together, increasing the likelihood of bleeding. Generally, people on Coumadin should avoid high dosages of these products (more than the equivalent of one clove of garlic per day or 240 mg daily of ginkgo extract).
- Iron, magnesium, and zinc may bind with Coumadin, decreasing its absorption and activity. Take Coumadin and products that contain iron, magnesium, or zinc at least two hours apart.
- To reduce the likelihood of bleeding and easy bruising with Coumadin, try 150–300 mg of either grape seed or pine bark extract daily.

## Natural Recovery

From a natural perspective, *Ginkgo biloba* extract is key to stroke recovery. It increases blood flow to the brain, boosts energy within nerve cells, and favorably affects blood thickness. The recommended dosage is 240–320 mg daily (less if you take Coumadin).

Several supplements can help prevent blood clots, including omega-3 fatty acids, antioxidants, flavonoids, grape seed and pine bark extracts, and garlic. Fish oil (up to 3,000 mg per day EPA + DHA) and flavonoid-rich extracts appear to be able to be used safely in combination with aspirin and other platelet inhibitors. However, using multiple natural antiplatelet agents at the same time may increase bleeding tendencies when combined with antiplatelet drugs (including Plavix and Ticlid).

Two forms of choline have shown promise in aiding stroke recovery: citicoline (CDP-choline) and glycerophosphocholine (GPC). In one six-month trial that followed 2,044 stroke patients, GPC was found to significantly help the recovery more than 95 percent of participants—without side effects. Choose one of the following: citicoline: 1,000–2,000 mg daily or GPC 600–1,200 mg daily. There are no known interactions between citicoline or GPC and Coumadin or anti-platelet drugs.

Lastly, there's nattokinase, a protein-digesting enzyme that has potent "clot busting" properties. It has shown significant potential in improving stroke recovery. Typical dosage is 100–200 mg daily. Nattokinase should be used with caution for those taking Coumadin or antiplatelet drugs.